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FILE LAST UPDATED: 11 Aug 2002 (20020811/ED)

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=> d stat que  
L3 ( 400)SEA FILE=HCAPLUS ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?  
L5 2896953 SEA FILE=HCAPLUS PREP/RL  
L7 48 SEA FILE=HCAPLUS L3 AND L5  
L8 1 SEA FILE=HCAPLUS L7 AND (RADIAT? OR GAMMA(W)RAY?)

=> d ibib abs hitrn l8

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:17860 HCAPLUS  
DOCUMENT NUMBER: 134:102446  
TITLE: Self-crosslinkable **alkylcellulose**  
derivatives for biodegradable water absorbents and  
their preparation by irradiation  
INVENTOR(S): Yoshii, Fumio; Kume, Tamikazu; Murakami, Tadashi  
PATENT ASSIGNEE(S): Japan Atomic Energy Research Institute, Japan; Daicel  
Chemical Industries, Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

-----  
JP 2001002703      A2      20010109      JP 1999-177517      19990623  
AB The derivs., useful for diapers, sanitary goods, etc., are prepd. by  
irradn. of a mixt. contg. 100 parts C1-3-**alkyl**  
**celluloses** and 5-2000 parts water. The products (gels) have  
compression strength .gtoreq.100 g/cm2. Examples for manuf. of  
water-absorbing gels by **.gamma.-ray** irradn. of aq.  
solns. of CM-cellulose Na salt, carboxyethyl cellulose, hydroxypropyl  
cellulose, etc., were shown.

=> d stat que

L3 (      400)SEA FILE=HCAPLUS ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?  
L5      2896953 SEA FILE=HCAPLUS PREP/RL  
L7      48 SEA FILE=HCAPLUS L3 AND L5  
L8      1 SEA FILE=HCAPLUS L7 AND (RADIAT? OR GAMMA(W)RAY?)  
L10      399 SEA FILE=HCAPLUS L3 NOT L8  
L11      1 SEA FILE=HCAPLUS L10 AND SELF(W)(CROSS(W)LINK? OR CROSSLINK?)

=> d ibib abs hitrn l11

L11 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER:      2002:575754 HCAPLUS

TITLE:      **Self-cross-linking**

**alkyl cellulose** derivative,  
production process therefor, and use thereof

INVENTOR(S):      Yoshii, Fumio; Kume, Tamikazu; Murakami, Tadashi

PATENT ASSIGNEE(S):      Japan

SOURCE:      U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE:      Patent

LANGUAGE:      English

FAMILY ACC. NUM. COUNT:      1

PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------|------|----------|-----------------|----------|
| US 2002103160 | A1   | 20020801 | US 2001-770634  | 20010129 |

AB A process for producing a **self-cross-linking**  
**alkyl cellulose** derivative, which includes irradiating,  
with radioactive rays, a mixture of a starting **alkyl**  
**cellulose** derivative (the number of carbon atoms of the alkyl  
group is 1 through 3, the alkyl group may be substituted by a hydroxyl  
group or a carboxyl group, and the carboxyl group may form a salt) (100  
parts by weight) and water (5-2,000 parts by weight), and thus obtained  
**self-cross-linking alkyl**  
**cellulose** derivative has an improved biodegradability and  
excellent water-absorbability.

=> d stat que

L1 (      175)SEA FILE=HCAPLUS CARBOXY(W)ALKYL(W)CELLULOSE? OR CARBOXYALKYLCE  
LLULOSE? OR CARBOXYALKYL(W)CELLULOSE?

L2 ( 485) SEA FILE=HCAPLUS HYDROXY(W)ALKYL(W)CELLULOSE? OR HYDROXYALKYL(W)  
)CELLULOSE? OR HYDROXYALKYLCELLULOSE?  
L3 ( 400) SEA FILE=HCAPLUS ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?  
L4 70 SEA FILE=HCAPLUS (L1 OR L2) AND L3  
L5 2896953 SEA FILE=HCAPLUS PREP/RL  
L6 11 SEA FILE=HCAPLUS L4 AND L5  
L7 48 SEA FILE=HCAPLUS L3 AND L5  
L8 1 SEA FILE=HCAPLUS L7 AND (RADIAT? OR GAMMA(W)RAY?)  
L10 399 SEA FILE=HCAPLUS L3 NOT L8  
L11 1 SEA FILE=HCAPLUS L10 AND SELF(W) (CROSS(W)LINK? OR CROSSLINK?)  
L12 11 SEA FILE=HCAPLUS L6 NOT (L8 OR L11)

=> d ibib abs hitrn l12 1-11

L12 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1998:608428 HCAPLUS  
DOCUMENT NUMBER: 129:232203  
TITLE: Manufacture of cellulose ethers containing 2-propenyl  
groups and their use as protective colloids in  
polymerization of vinyl monomers  
INVENTOR(S): Donges, Reinhard; Ehrler, Rudolf; Wurm, Horst  
PATENT ASSIGNEE(S): Clariant G.m.b.H., Germany  
SOURCE: Eur. Pat. Appl., 14 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE     |
|--|------|----------|------------------|----------|
| EP 863158  | A2   | 19980909 | EP 1998-103409   | 19980227 |
| EP 863158  | A3   | 19990512 |                  |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO |      |          |                  |          |
| DE 19708531  | A1   | 19980910 | DE 1997-19708531 | 19970303 |
| AU 9856346   | A1   | 19980903 | AU 1998-56346    | 19980226 |
| JP 10265502  | A2   | 19981006 | JP 1998-49845    | 19980302 |
| CN 1194987   | A    | 19981007 | CN 1998-107714   | 19980302 |
| US 5994531   | A    | 19991130 | US 1998-32862    | 19980302 |
| BR 9800814   | A    | 20000411 | BR 1998-814      | 19980303 |

PRIORITY APPLN. INFO.: DE 1997-19708531 A 19970303

AB H<sub>2</sub>O-sol., nonionic (**hydroxy**)**alkyl cellulose**  
derivs. with av. polymn. degree <900, substituted with 0.01-0.04  
2-propenyl groups per anhydroglucose unit, are used for the title purpose.  
Such derivs. are more susceptible to radical grafting with vinyl monomers  
and more effective as protective colloids than the previous art cellulose  
derivs. A typical title ether was manufd. by etherification of Tylomer H  
20 (hydroxyethyl cellulose with av. polymn. degree 220) with allyl  
glycidyl ether in Me<sub>3</sub>CHOH, in the presence of aq. NaOH.

L12 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:587709 HCAPLUS

DOCUMENT NUMBER: 127:235912  
TITLE: Manufacture of cellulose derivatives with sulfonic acid groups  
INVENTOR(S): Tanioka, Soji; Fukui, Ikuo; Onda, Yoshiro  
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 09227601 | A2   | 19970902 | JP 1996-35881   | 19960223 |

OTHER SOURCE(S): MARPAT 127:235912  
AB Cellulose-type substances are reacted with sulfonated conjugated dienes R1R2C:CR3CR4:CR5R6 (R1-R6 = SO3X, C1-8 alkyl, H; .gtoreq.1 of R1-R6 is SO3X; X = H, alkali metal, alk. earth metal, NH4) in the presence of alkalis. This process gives cellulose derivs. contg. SO3H at low cost. Thus, 20.8 g powd. linter pulp was dispersed in i-Pr alc., stirred in the presence of NaOH, reacted with 17.5 g 2-methyl-1,3-butanediene sulfonic acid sodium salt while refluxing, neutralized, washed, and dried to give a transparent sulfonated cellulose soln.

L12 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:833373 HCAPLUS  
DOCUMENT NUMBER: 123:341335  
TITLE: Preparation of styrene polymer beads  
INVENTOR(S): Ono, Norihito; Sato, Masanobu  
PATENT ASSIGNEE(S): Sumitomo Chemical Co, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 07173205 | A2   | 19950711 | JP 1993-322153  | 19931221 |

AB Title beads with uniform size and sharp particle size distribution in repeated batches are prepd. by suspension polymn. of styrene monomers in aq. media with suspension stabilizers of **alkyl cellulose** or **hydroxyalkyl cellulose**, anionic surfactants, and gelatin in a polymn. vessel coated with naphthol (deriv.) sulfides. Thus, 125 parts styrene and 255 parts divinylstyrene contg. 44% ethylstyrene were suspension polyemd. with 3.0 parts Metolose 90SH100 (hydroxypropyl Me cellulose), 2 parts Emal 2F Needle, and 0.45 part Gelatin R (gelatin) in an SUS 304 reactor coated with oligomeric 1-naphthol sulfide (obtained from 1-naphthol and S2Cl2) to give polymer beads with av. size 46 .mu.m and equiv. no. 3.2 for initial batch. These values did no change after 5 batches.

L12 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:341021 HCAPLUS  
DOCUMENT NUMBER: 122:114942  
TITLE: controlled-release pharmaceuticals  
INVENTOR(S): Ootsuka, Masaru; Myazawa, Yoshuki; Maruyama, Koichi  
PATENT ASSIGNEE(S): Grelan Pharmaceutical Co, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| JP 06316517            | A2   | 19941115 | JP 1994-44740   | 19940221 |
| PRIORITY APPLN. INFO.: |      |          | JP 1993-54676   | 19930222 |

AB Controlled-release pharmaceuticals consists of (A) slow-release tablets or granules contg. active ingredients (e.g. caffeine) 1-90, hydroxy lower **alkyl cellulose** 1-90, and bases 1-90 parts and (B) fast-release tablets or granules contg. active ingredients (caffeine) 1-90, hydroxy lower **alkyl cellulose** 1-90, and bases 1-90 parts. Both prepsns. are incorporated into an administration unit to regulate the release rate.

L12 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:166877 HCAPLUS  
DOCUMENT NUMBER: 120:166877  
TITLE: Polymer-modified particulate titanium dioxide  
INVENTOR(S): Roulstone, Brian John; Waters, Julian Alfred  
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK  
SOURCE: Eur. Pat. Appl., 23 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.                            | KIND | DATE     | APPLICATION NO. | DATE     |
|---------------------------------------|------|----------|-----------------|----------|
| EP 549163                             | A1   | 19930630 | EP 1992-311057  | 19921203 |
| EP 549163                             | B1   | 19940720 |                 |          |
| R: BE, DE, ES, FR, GB, IT, LU, NL, SE |      |          |                 |          |
| ES 2056690                            | T3   | 19941001 | ES 1992-311057  | 19921203 |
| AU 9229944                            | A1   | 19930624 | AU 1992-29944   | 19921208 |
| AU 648450                             | B2   | 19940421 |                 |          |
| ZA 9209734                            | A    | 19940426 | ZA 1992-9734    | 19921215 |
| CA 2085779                            | AA   | 19930624 | CA 1992-2085779 | 19921218 |
| CN 1074460                            | A    | 19930721 | CN 1992-115391  | 19921223 |
| JP 05255609                           | A2   | 19931005 | JP 1992-344465  | 19921224 |
| US 5412019                            | A    | 19950502 | US 1994-189279  | 19940131 |
| US 5534585                            | A    | 19960709 | US 1994-295103  | 19940824 |
| PRIORITY APPLN. INFO.:                |      |          | GB 1991-27293   | 19911223 |
|                                       |      |          | US 1992-995010  | 19921222 |

US 1994-189279 19940131

AB The title particles comprise TiO<sub>2</sub> with no.-av. diam. of 100-400 nm and org. polymer particles which can accommodate around the TiO<sub>2</sub> particles and are preformed by free radical polymn. in the presence of TiO<sub>2</sub>-adsorbing group-contg. polymer-bondable and water-sol. compds. (A) or by polymn. followed by chem. bonding with A. Stirring 210-nm TiO<sub>2</sub>-contg. aq. dispersion with a latex (pH 8) contg. <225-nm vinyl particles contg. Natrosol 250 LR (hydroxyethyl cellulose) gave a stable dispersion which was dried at ambient temp. for 24 h to form a 200-.mu.m film with good sheen and coin mar resistance.

L12 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1993:23192 HCAPLUS  
DOCUMENT NUMBER: 118:23192  
TITLE: Preparation of vinyl-based polymer particles  
INVENTOR(S): Matsuda, Kimiaki; Aoi, Masahiro  
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 04270702 | A2   | 19920928 | JP 1991-30702   | 19910226 |
| JP 2964662  | B2   | 19991018 |                 |          |

AB Title particles with uniform particle size, are prepd. by suspension polymn. of vinyl-based monomers in presence of (A) (hydroxy) **alkylcellulose**, (B) anionic surfactants, and (C) gelatins as suspension stabilizers. Thus, 200 parts styrene and 100 parts divinylbenzene (contg. 44% ethylstyrene) were suspension-polymd. in presence of Metolose 90SH100, Emal 2F Needle, Gelatin R (gelatin), tert-amyl alc., and lauroyl peroxide in H<sub>2</sub>O at 60-80.degree. for 8 h under N with stirring to give vinyl-based polymer particles with uniform particle size.

L12 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1987:479805 HCAPLUS  
DOCUMENT NUMBER: 107:79805  
TITLE: Anionic polysaccharide separation membranes  
INVENTOR(S): Reineke, Charles Everett; Jagodzinski, James Anthony  
PATENT ASSIGNEE(S): Dow Chemical Co., USA  
SOURCE: Pat. Specif. (Aust.), 27 pp.  
CODEN: ALXXAP  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| AU 542434  | B1   | 19850221 | AU 1983-21882   | 19831201 |

|            |    |          |                |          |
|------------|----|----------|----------------|----------|
| GB 2150140 | A1 | 19850626 | GB 1983-31272  | 19831123 |
| GB 2150140 | B2 | 19870708 |                |          |
| ZA 8308859 | A  | 19850731 | ZA 1983-8859   | 19831128 |
| CA 1255061 | A1 | 19890606 | CA 1983-442309 | 19831130 |
| EP 146655  | A1 | 19850703 | EP 1983-201778 | 19831214 |
| EP 146655  | B1 | 19890802 |                |          |

R: AT, BE, CH, DE, FR, IT, LI, NL, SE

|            |   |          |                |          |
|------------|---|----------|----------------|----------|
| AT 45101   | E | 19890815 | AT 1983-201778 | 19831214 |
| BR 8307037 | A | 19850723 | BR 1983-7037   | 19831216 |

PRIORITY APPLN. INFO.:

|                |          |
|----------------|----------|
| AU 1983-21882  | 19831201 |
| EP 1983-201778 | 19831214 |

AB H2O-selective permeation membranes, useful for removing H2O from H2O-miscible org. compds., comprise a nonporous anionic polysaccharide selected from the group of alginic acid, **carboxyalkyl cellulose**, carboxyalkyl **alkyl cellulose**, sulfoalkyl cellulose, sulfoalkyl **alkyl cellulose**, cellulose sulfate, cellulose phosphate, cellulose arsenate, cellulose phosphinate, cellulose tellurate, and their ether derivs. The anionic polysaccharide contains a plurality of pendant anionic groups in salt form in an amt. sufficient to allow the membrane to permeate H2O while essentially impeding the permeation of org. compds. Preferably, the anionic polysaccharide or its deriv. is blended with the salt of a polyanion, which is not a polysaccharide, having a plurality of groups derived from strong or weak acids. A membrane was prepd. by casting a 4.25% aq. Na CM-cellulose (degree of substitution 0.9) soln., placed on a filter paper and a porous metal disk, which were then placed into a Gelman stainless steel filter holder connected to a vacuum pump. The membrane was used for the sepn. of EtOH-H2O mixts. at 25.degree. with excellent selectivity (sepn. factor 877-2578).

L12 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1984:511915 HCAPLUS

DOCUMENT NUMBER: 101:111915

TITLE: Suspension polymerization for crosslinked polymer having uniform granular diameters

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Tokkyo Koho, 10 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 59019123 | B4   | 19840502 | JP 1976-61283   | 19760528 |

AB Water-insol. phosphates, water-sol. **alkylcellulose** or **hydroxyalkylcellulose**, and anionic surfactants are used as suspending agents in suspension polymn. Thus, hydroxyapatite 0.5, methylcellulose (I) [9004-67-5] 0.25, and ammonium lauryl sulfate [2235-54-3] 0.1% were used as suspending agents to prep. divinylbenzene-4-vinylpyridine copolymer [9017-40-7] having granule size distribution as follows: on 200 mesh 9, on 250 mesh 22, on 280 mesh 44, on 300 mesh 17, on 400 mesh 7, and pass 400 mesh 1%, compared with on 120

mesh 14, on 150 mesh 46, on 200 mesh 22, on 280 mesh 11, and on 400 mesh 7%, for using 0.5% I as the suspending agent.

L12 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1980:182695 HCAPLUS

DOCUMENT NUMBER: 92:182695

TITLE: Alkyl and hydroxyalkyl **alkyl cellulose**

AUTHOR(S): Greminger, George K., Jr.; Krumel, Karl L.

CORPORATE SOURCE: Dow Chem. Co., Midland, MI, USA

SOURCE: Handb. Water-Soluble Gums Resins (1980), 3/1-3/25.

Editor(s): Davidson, Robert L. McGraw-Hill: New York, N. Y.

CODEN: 43AIAV

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review with many refs. of the prepn., properties, and com. utilization of the title compds.

L12 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1978:546449 HCAPLUS

DOCUMENT NUMBER: 89:146449

TITLE: Compact nitroguanidine

INVENTOR(S): Brachert, Heinrich

PATENT ASSIGNEE(S): Dynamit Nobel A.-G., Ger.

SOURCE: Ger. Offen., 7 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| DE 2701994 | A1   | 19780720 | DE 1977-2701994 | 19770119 |
| DE 2701994 | C2   | 19860320 |                 |          |

AB A compact nitroguanidine of increased pouring d. was prepd. by recrystg. from aq. soln. in the presence of 1-5% **alkyl celluloses** or **carboxyalkyl celluloses**. Thus, nitroguanidine (pouring d. 0.3 g/mL) was added to aq. Tylose MH 50 at 80.degree. and the soln. temp. raised to 100.degree. and cooled to give nitroguanidine with a pouring d. of 0.84 g/mL. A pressed cylinder of high d. nitroguanidine 46 with NH4NO3 50 and polyvinylbutyral 4 wt.-parts did not pulverize on handling, whereas ordinary nitroguanidine gave a cylinder which partially pulverized almost immediately after being pressed.

L12 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1969:58403 HCAPLUS

DOCUMENT NUMBER: 70:58403

TITLE: Suspension copolymerization of vinyl acetate with crotonic acid

INVENTOR(S): Sakato, Naoyuki; Koizumi, Jun

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 3 pp.

CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 43027426 | B4   | 19681126 | JP              | 19641113 |

AB In the title process, dispersing agents such as **hydroxyalkyl cellulose** and hydroxyalkylated **alkyl cellulose** are used. Thus, a mixt. of vinyl acetate 98, crotonic acid 2, 0.05% aq. hydroxypropyl Me cellulose [contg. 22% OMe and 6% OCH<sub>2</sub>CH(OH)Me groups] 200, and Bz2O2 1 part was polymd. 8 hrs. at 60-85.degree. to yield 95% 0.5-1 mm. bead copolymer, transparency of 5% MeOH soln. 97.2%, stable for > 1 year.

=> d stat que

L1 ( 175)SEA FILE=HCAPLUS CARBOXY(W)ALKYL(W)CELLULOSE? OR CARBOXYALKYLCELLULOSE? OR CARBOXYALKYL(W)CELLULOSE?  
L2 ( 485)SEA FILE=HCAPLUS HYDROXY(W)ALKYL(W)CELLULOSE? OR HYDROXYALKYL(W)CELLULOSE? OR HYDROXYALKYLCELLULOSE?  
L3 ( 400)SEA FILE=HCAPLUS ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?  
L4 70 SEA FILE=HCAPLUS (L1 OR L2) AND L3  
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L7 48 SEA FILE=HCAPLUS L3 AND L5  
L8 1 SEA FILE=HCAPLUS L7 AND (RADIAT? OR GAMMA(W)RAY?)  
L10 399 SEA FILE=HCAPLUS L3 NOT L8  
L11 1 SEA FILE=HCAPLUS L10 AND SELF(W) (CROSS(W)LINK? OR CROSSLINK?)  
L13 387 SEA FILE=HCAPLUS L10 NOT (L6 OR L8 OR L11)  
L14 3 SEA FILE=HCAPLUS L13 AND IRRAD?

=> d ibib abs hitrn l14 1-3

L14 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1999:131445 HCAPLUS  
DOCUMENT NUMBER: 130:282691  
TITLE: Structural study of a n-alkylthiophene polymer grown in an oriented ultrathin matrix of **alkylcellulose**  
AUTHOR(S): Henry, C.; Armand, F.; Araspin, O.; Bourgoin, J.-P.; Wegner, G.  
CORPORATE SOURCE: CEA/DSM/DRECAM Service de Chimie Moleculaire, CE Saclay, Gif-sur-Yvette, 91191, Fr.  
SOURCE: Chemistry of Materials (1999), 11(4), 1024-1029  
CODEN: CMATEX; ISSN: 0897-4756  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB A thin conducting film of an org. composite material based on Bu cellulose and polythiophene has been fabricated. Thin oriented films of Bu

cellulose cinnamate were deposited on a conducting substrate by the Langmuir-Blodgett technique and stabilized by crosslinking through UV **irradn**. Subsequent exposure to a soln. of 3-pentylthiophene followed by electropolymn. led to the formation of poly(3-pentylthiophene) (PPT) within the **alkyl cellulose** matrix. The structure of the composite material has been characterized by various spectroscopies, microscopies, and microanal. techniques. The composite material is made of domains of PPT oriented along the cellulose backbones. In the case of large domains (up to 35 .times. 150 .mu.m2) there is a segregation between cellulose and PPT. However, for small domains (a few square microns), the two polymers seem to be intimately mixed and PPT is oriented at the mol. level. In all cases, the **alkyl cellulose** stabilizes the PPT film in org. solvents and does not worsen the PPT conducting properties.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:26985 HCAPLUS  
DOCUMENT NUMBER: 124:140153  
TITLE: Spectrochemistry of plasma-induced free radicals in cellulose derivatives  
AUTHOR(S): Kuzuya, Masayuki; Yamauchi, Yukinori; Niwa, Junji; Kondo, Shin-ichi; Sakai, Yoko  
CORPORATE SOURCE: Lab. Pharmaceutical Phys. Chemistry, Gifu Pharmaceutical Univ., Gifu, 502, Japan  
SOURCE: Chem. Pharm. Bull. (1995), 43(12), 2037-41  
CODEN: CPBTAL; ISSN: 0009-2363  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The authors report specific features of plasma-induced free radicals of cellulose derivs. such as Et cellulose (EC) and hydroxyethylcellulose (HEC) and a comparison with those of cellulose. The ESR spectra of Ar plasma-**irradiated** EC and HEC consist of 3 kinds of discrete spectral components, 2 isotropic spectra [doublets (I) and triplets (II), both being assigned to hydroxy alkyl radicals] and 1 anisotropic spectrum [doublet of doublets (IV) assigned to an acyl alkyl radical], and a single broad line spectrum (III). The special feature here is the fact that the spectrum (III) is a major component, contrary to cellulose, which was assigned to an immobilized dangling-bond site at the crosslinked region. The results suggest that plasma-induced crosslinking reactions are very predominant in EC and HEC relative to that of cellulose, due to the presence of alkyl substituents in EC and HEC.

L14 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1987:144029 HCAPLUS  
DOCUMENT NUMBER: 106:144029  
TITLE: Adhesive tapes for mucous membranes or other skin surfaces  
INVENTOR(S): Takeshita, Kazuo  
PATENT ASSIGNEE(S): Showa Yakuhin Kako Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 61268260 | A2   | 19861127 | JP 1985-111106  | 19850523 |
| JP 01037152 | B4   | 19890804 |                 |          |

AB Adhesive tapes for mucous membranes or other skin surfaces contain polyacrylate Na and active ingredients with or without **alkyl cellulose** polyvinyl compds. The tapes are highly adhesive and resistant to saliva. Thus, a mixt. contg. 500 mg potency fradiomycin sulfate, 250 mg hydrocortisone acetate and polyacrylate Na (to 50 g) was spread on a silicone-treated stainless steel plate, treated with 70% EtOH, rolled, and dried at 80-85.degree. under IR **irradn.** for .apprx.5 min to produce an adhesive tape. The tape was cut to a size of 10 .times. 25 mm.

show files

File 155:MEDLINE(R) 1966-2002/Aug W1  
 File 5:Biosis Previews(R) 1969-2002/Aug W1  
 (c) 2002 BIOSIS  
 File 31:World Surface Coatings Abs 1976-2002/Jul  
 (c) 2002 Paint Research Assn.  
 File 53:FOODLINE(R): Food Science & Technology 1972-2002/Aug 12  
 (c) 2002 LFRA  
 File 73:EMBASE 1974-2002/Aug W1  
 (c) 2002 Elsevier Science B.V.  
 File 94:JICST-EPlus 1985-2002/Jun W3  
 (c) 2002 Japan Science and Tech Corp(JST)  
 File 144:Pascal 1973-2002/Aug W2  
 (c) 2002 INIST/CNRS  
 File 240:PAPERCHEM 1967-2002/Jul W3  
 (c) 2002 IPST  
 File 342:Derwent Patents Citation Indx 1978-01/200210  
 (c) 2002 Thomson Derwent  
 File 345:Inpadoc/Fam.& Legal Stat 1968-2002/UD=200231  
 (c) 2002 EPO  
 File 347:JAPIO Oct 1976-2002/Apr(Updated 020805)  
 (c) 2002 JPO & JAPIO  
 File 351:Derwent WPI 1963-2002/UD,UM &UP=200250  
 (c) 2002 Thomson Derwent  
 File 357:Derwent Biotech Res. 1982-2002/June W1  
 (c) 2002 Thomson Derwent & ISI  
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
 (c) 1998 Inst for Sci Info  
 File 440:Current Contents Search(R) 1990-2002/Aug 13  
 (c) 2002 Inst for Sci Info

?ds

| Set | Items | Description  |
|-----|-------|--|
| S1  | 18    | (ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?) AND (PREPAR? OR PREP OR MANUF? OR PRODUC?) AND (IRRAD? OR RADIAT? OR GAMMA(W)RAY?) |
| S2  | 17    | RD (unique items)  |

?t2/7/1-17

2/7/1 (Item 1 from file: 347)  
 DIALOG(R)File 347:JAPIO  
 (c) 2002 JPO & JAPIO. All rts. reserv.

06775229  
 SELF-CROSSLINKED ALKYLCELLULOSE DERIVATIVE, AND ITS PRODUCTION

PUB. NO.: 2001-002703 [JP 2001002703 A]  
 PUBLISHED: January 09, 2001 (20010109)  
 INVENTOR(s): YOSHII FUMIO  
 KUME TAMIKAZU  
 MURAKAMI TEI  
 APPLICANT(s): JAPAN ATOM ENERGY RES INST  
 DAICEL CHEM IND LTD  
 APPL. NO.: 11-177517 [JP 99177517]  
 FILED: June 23, 1999 (19990623)

#### ABSTRACT

PROBLEM TO BE SOLVED: To obtain the subject derivative which has excellent biodegradability and further has excellent water absorbability, by irradiating a mixture comprising an alkylcellulose derivative and water with radiations .

SOLUTION: This method for producing a self-crosslinked alkylcellulose derivative comprises irradiating a mixture comprising (A) 100 pts.wt. of an alkylcellulose derivative as a raw material (the alkyl group has one to three carbon atoms and may be substituted by one or more hydroxyl groups, or the like) and (B) 5 to 2,000 pts.wt. of water with radiations. The component A is preferably a carboxyalkylcellulose, a hydroxyalkylcellulose, an alkylcellulose or their mixture, which has at least one hydroxyl group or carboxyl group per glucose unit. 20% or more of the total amount of the hydroxyl groups and carboxyl groups of the component A is especially preferably their alkali metal salts, ammonium salts or amine salts.

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2/7/2 (Item 1 from file: 351)  
 DIALOG(R)File 351:Derwent WPI  
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014516977 \*\*Image available\*\*  
 WPI Acc No: 2002-337680/200237

Cosmetic composition for releasing active agent, especially sunscreen, onto user's skin includes multiplicity of microcapsules having active agent deteriorating over time with exposure to radiation

Patent Assignee: INVENT RESOURCES INC (INVE-N)

Inventor: AISENBERG S; FREEDMAN G; HED A Z; PAVELLE R

Number of Countries: 001. Number of Patents: 001

Patent Family:

| Patent No  | Kind | Date     | Applicat No | Kind | Date     | Week     |
|------------|------|----------|-------------|------|----------|----------|
| US 6348218 | B1   | 20020219 | US 99411085 | A    | 19991004 | 200237 B |

Priority Applications (No Type Date): US 99411085 A 19991004

Patent Details:

| Patent No  | Kind | Lan | Pg          | Main IPC | Filing Notes |
|------------|------|-----|-------------|----------|--------------|
| US 6348218 | B1   | 12  | A61K-009/50 |          |              |

Abstract (Basic): US 6348218 B1

NOVELTY - A cosmetic composition comprises a medium to be spread onto the user's skin and a multiplicity of microcapsules dispersed in the medium. The microcapsules contain active agent(s) deteriorating over time with exposure to radiation. The release rate is controlled by providing the microcapsules with half-life times that deteriorate under ultraviolet radiation.

DETAILED DESCRIPTION - A cosmetic composition comprises a medium to be spread onto the user's skin and a multiplicity of microcapsules dispersed in the medium, where the microcapsules contain active agent(s). They have sufficient strength so that only minority of the microcapsules ruptures during application of the composition onto the user's skin. The release rate is controlled by providing a population of microcapsules with half-life times to deterioration under the influence of the ultraviolet (UV) radiation for one half-6 hours. The release rate is a function of exposure to UV radiation.

An INDEPENDENT CLAIM is also included for a method for releasing a sun blocking agent onto a user's skin over time by spreading a medium onto the skin of the user and exposing the skin to the UV radiation to cause the microcapsules to deteriorate over time to release the at least sun blocking agent(s) onto the skin.

USE - For releasing active agent onto a user's skin at a predetermined release rate.

ADVANTAGE - The encapsulating active ingredients for the skin

within capsules whose wall material deteriorates with exposure to the UV radiation provide a continuous mechanism for replenishing a film of UV absorbing agent or other active ingredients onto the skin.

DESCRIPTION OF DRAWING(S) - The figure is a side elevational view of microcapsules containing UV screening agents homogeneously distributed within a carrier film of a cosmetic preparation .

pp; 12 DwgNo 1/6

Derwent Class: A96; B07; D21

International Patent Class (Main): A61K-009/50

2/7/3 (Item 2 from file: 351)

DIALOG(R) File 351:Derwent WPI

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014417787

WPI Acc No: 2002-238490/200229

Detection of temperature excursions of articles, including perishable products such as vaccines, below threshold temperature, comprises using partially polymerized freeze indicator

Patent Assignee: PATEL G N (PATE-I)

Inventor: PATEL G N

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No      | Kind | Date     | Applicat No   | Kind | Date     | Week     |
|----------------|------|----------|---------------|------|----------|----------|
| US 20010046451 | A1   | 20011129 | US 99320358   | A    | 19990526 | 200229 B |
|                |      |          | US 2001897240 | A    | 20010702 |          |

Priority Applications (No Type Date): US 2001897240 A 20010702; US 99320358 A 19990526

Patent Details:

| Patent No      | Kind | Lan | Pg          | Main IPC           | Filing Notes |
|----------------|------|-----|-------------|--------------------|--------------|
| US 20010046451 | A1   | 15  | G01N-031/22 | CIP of application | US 99320358  |

Abstract (Basic): US 20010046451 A1

NOVELTY - Temperature excursions of articles, including perishable products such as vaccines, below a threshold temperature is detected by attaching a partially polymerized freeze indicator to the article. The freeze indicator comprises an activator system and an indicator. When the article is exposed to below the threshold temperature, the activator solvent induces a color change in the indicator.

DETAILED DESCRIPTION - Detection of temperature excursions of articles below a threshold temperature comprises preparing a freeze indicator comprising an activator system and an indicator, partially polymerizing the indicator at above the threshold temperature, and attaching the freeze indicator to the article.

The activator system comprises water and an activator solvent which is miscible in water above the threshold temperature and separates from water below the threshold temperature. The indicator irreversibly reacts with the activator solvent when separated from water. When the article is exposed to a temperature below the threshold temperature, the activator solvent separates from water and reacts with the indicator to cause a color change in the indicator.

INDEPENDENT CLAIMS are also included for:

- (A) a method of preparing a freeze indicator;
- (B) a device for detecting excursions below a threshold temperature; and
- (C) a gel formulation for detecting temperature excursions below a threshold temperature.

The method includes mixing an indicator with a solvent system and exposing the indicator to radiation at above the threshold

temperature to polymerize the indicator.

The device comprises compound of formula R1-C equivalent to C-C equivalent to C-R2 and a solvent system. The gel formulation comprises water, a solvent miscible with water above the threshold temperature, a gelling agent, and a dispersion of partially polymerized diacetylene.

R1, R2=(CH2)b-H, (CH2)bOH, (CH2)b-CONH-R1, (CH2)b-O-CO-R1, (CH2)b-OCONHCH2COO-R1, (CH2)b-COOH, (CH2)b-COOM, (CH2)b-NH2, (CH2)b-CONHR1, (CH2)b-CO-O-R1;

b=1-10;

R1=aliphatic or aromatic radical; and

M=cation e.g. Na+ or (R1)3N+.

USE - For detecting temperature excursions of articles, e.g. perishable products (such as vaccines, fresh produce, flowers, and latex paints) and emulsions (such as milk, fruit juices and yogurt) below a threshold temperature.

ADVANTAGE - The process utilizes a device that can be conformed to any shape.

pp; 15 DwgNo 0/7

Derwent Class: A89; B07; E19; G04; S03

International Patent Class (Main): G01N-031/22

2/7/4 (Item 3 from file: 351)

DIALOG(R) File 351:Derwent WPI

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014300593 \*\*Image available\*\*

WPI Acc No: 2002-121297/200216

Polymer for preparing anti-reflective compositions for use in the manufacture of microelectronic devices comprises hydroxyalkyl cellulose reacted with aryl isocyanate

Patent Assignee: BHAVE M R (BHAV-I); MEADOR J D (MEAD-I)

Inventor: BHAVE M R; MEADOR J D

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No      | Kind | Date     | Applicat No   | Kind | Date     | Week     |
|----------------|------|----------|---------------|------|----------|----------|
| US 20010031428 | A1   | 20011018 | US 9869573    | A    | 19980429 | 200216 B |
|                |      |          | US 2000643695 | A    | 20000822 |          |
|                |      |          | US 2001798178 | A    | 20010302 |          |

Priority Applications (No Type Date): US 2001798178 A 20010302; US 9869573 A 19980429; US 2000643695 A 20000822

Patent Details:

| Patent No      | Kind | Lan | Pg | Main IPC    | Filing Notes   |
|----------------|------|-----|----|-------------|--|
| US 20010031428 | A1   |     | 7  | G03F-007/30 | Cont of application US 9869573<br>CIP of application US 2000643695 |

Abstract (Basic): US 20010031428 A1

NOVELTY - A polymer comprising hydroxyalkyl cellulose reacted with an aryl isocyanate is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(A) an anti-reflective composition for protecting a base material or holes formed in a base material, which includes the polymer dissolved in a solvent system;

(B) the combination of a substrate and a cured protective layer comprising the composition on the substrate surface;

(C) the formation of a precursor structure for use in manufacturing integrated circuits, which comprises applying an anti-reflective composition to the surface of the substrate; and

(D) the formation of a polymer useful in anti-reflective

compositions utilized in microlithographic processes.

USE - The method is used for preparing anti-reflective compositions for use in the manufacture of microelectronic devices.

ADVANTAGE - The invention provides improved anti-reflective coatings which can be effectively utilized to form integrated circuits having submicron features while absorbing light at the wavelength of interest. A protective layer from the composition can absorb at least 96% of light at wavelength of 193 nm.

pp; 7 DwgNo 0/0

Derwent Class: A25; A85; G02; L03; P84; U11  
International Patent Class (Main): G03F-007/30

2/7/5 (Item 4 from file: 351)  
DIALOG(R)File 351:Derwent WPI  
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013819299

WPI Acc No: 2001-303511/200132

Manufacture of self crosslinked alkyl cellulose derivative used as soil conditioner in agriculture, is obtained by irradiating gamma rays on mixture of alkyl cellulose derivative and water

Patent Assignee: DAICEL CHEM IND LTD (DAIL ); JAPAN ATOMIC ENERGY RES INST (JAAT )

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No     | Kind | Date     | Applicat No | Kind | Date     | Week     |
|---------------|------|----------|-------------|------|----------|----------|
| JP 2001002703 | A    | 20010109 | JP 99177517 | A    | 19990623 | 200132 B |

Priority Applications (No Type Date): JP 99177517 A 19990623

Patent Details:

| Patent No     | Kind | Lan | Pg | Main IPC    | Filing Notes |
|---------------|------|-----|----|-------------|--------------|
| JP 2001002703 | A    |     | 9  | C08B-015/10 |              |

Abstract (Basic): JP 2001002703 A

NOVELTY - Self-crosslinked alkyl cellulose derivative is obtained by irradiating gamma - rays on a mixture containing 100 weight parts (wt.pts) of 1-3C alkyl cellulose derivative as raw material and 5-2000 wt.pts of water.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for self-crosslinked alkyl cellulose derivative.

USE - As a ground modifier in engineering works, soil conditioner in agriculture and horticultural field, water retention agent, coating agent, adhesive, poultice and soft ice cream.

ADVANTAGE - Self-crosslinked type alkyl cellulose derivative is an excellent water absorbent and has self biodegrading ability.

pp; 9 DwgNo 0/6

Derwent Class: A11; A82; A97; C04; D14; D22; F09; G02

International Patent Class (Main): C08B-015/10

International Patent Class (Additional): C08J-003/24; C08J-003/28;  
C08L-001-08; C09D-101/28; C09D-101/32; C09J-101/28; C09J-101/32

2/7/6 (Item 5 from file: 351)  
DIALOG(R)File 351:Derwent WPI  
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013816896

WPI Acc No: 2001-301108/200132

Negative-working heat-sensitive composition useful for making lithographic printing plate, has water-soluble binder containing

dispersed particles of pigment and thermoplastic resin  
 Patent Assignee: KODAK POLYCHROME GRAPHICS CO LTD (EAST ); KODAK  
 POLYCHROME GRAPHICS LLC (EAST )  
 Inventor: MONK A S; RAY K B; MONK A S V  
 Number of Countries: 002 Number of Patents: 002  
 Patent Family:

| Patent No   | Kind | Date     | Applicat No | Kind | Date     | Week     |
|-------------|------|----------|-------------|------|----------|----------|
| DE 10037455 | A1   | 20010315 | DE 1037455  | A    | 20000801 | 200132 B |
| US 6245477  | B1   | 20010612 | US 99365495 | A    | 19990802 | 200135   |

Priority Applications (No Type Date): US 99365495 A 19990802

Patent Details:

| Patent No   | Kind | Lan | Pg | Main IPC    | Filing Notes |
|-------------|------|-----|----|-------------|--------------|
| DE 10037455 | A1   |     | 6  | G03F-007/12 |              |
| US 6245477  | B1   |     |    | G03C-001/72 |              |

Abstract (Basic): DE 10037455 A1

NOVELTY - Negative-working heat-sensitive composition comprises a water-soluble binder and dispersed particles comprising a pigment combined with a thermoplastic resin. It can be applied to a substrate as a dry coating, which becomes less soluble in an aqueous developer on heating.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (a) lithographic plate preforms;
- (b) printing plates produced from these.

USE - The composition is used for and in a process for making lithographic printing plate precursors and plates (all claimed).

ADVANTAGE - The composition is simple and can be developed with water or damping liquid and hence on-press. The coating can be applied from aqueous solution, avoiding the need to remove organic solvent.

pp; 6 DwgNo 0/0

Derwent Class: A18; A97; G05; P75; P83; P84

International Patent Class (Main): G03C-001/72; G03F-007/12

International Patent Class (Additional): B41N-003/03; G03F-007/34

2/7/7 (Item 6 from file: 351)  
 DIALOG(R) File 351:Derwent WPI  
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013556898

WPI Acc No: 2001-041105/200105

Pharmaceutical composition useful for stimulating epithelial cell proliferation and basal keratinocytes for wound healing comprises keratinocyte growth factor-2, in liquid or lyophilized forms

Patent Assignee: CHOPRA A (CHOP-I); GENTZ R L (GENT-I); HUMAN GENOME SCI INC (HUMA-N); KAUSHAL P (KAUS-I); KHAN F (KHAN-I); SPITZNAGEL T (SPIT-I); UNSWORTH E (UNSW-I)

Inventor: CHOPRA A; GENTZ R L; KAUSHAL P; KHAN F; SPITZNAGEL T; UNSWORTH E

Number of Countries: 094 Number of Patents: 003

Patent Family:

| Patent No    | Kind | Date     | Applicat No    | Kind | Date     | Week     |
|--------------|------|----------|----------------|------|----------|----------|
| WO 200072872 | A1   | 20001207 | WO 2000US15186 | A    | 20000602 | 200105 B |
| AU 200055932 | A    | 20001218 | AU 200055932   | A    | 20000602 | 200118   |
| EP 1196187   | A1   | 20020417 | EP 2000941186  | A    | 20000602 | 200233   |
|              |      |          | WO 2000US15186 | A    | 20000602 |          |

Priority Applications (No Type Date): US 99160913 P 19991022; US 99137448 P 19990602

Patent Details:

| Patent No | Kind | Lan | Pg | Main IPC | Filing Notes |
|-----------|------|-----|----|----------|--------------|
|-----------|------|-----|----|----------|--------------|

WO 200072872 A1 E 101 A61K-038/18

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH  
CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE  
KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO  
RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200055932 A A61K-038/18 Based on patent WO 200072872

EP 1196187 A1 E A61K-038/18 Based on patent WO 200072872

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): WO 200072872 A1

NOVELTY - Pharmaceutical composition (I) comprises:

- (1) 0.02-40 mg/ml (w/v) keratinocyte growth factor-2 (KGF-2) polypeptide;
- (2) buffer having buffering capacity of pH 5-8 at 5-50 mM;
- (3) a diluent to bring the composition to a designated volume; and
- (4) a preservative such as m-cresol, chlorobutanol, or a mixture of methyl paraben and propyl paraben or their reaction products.

ACTIVITY - Vulnerary; antiinflammatory; antipsoriatic; antidiabetic; ophthalmological; hemostatic. No biological data is given.

MECHANISM OF ACTION - Soft tissue growth or regeneration promoter; keratinocyte cell growth and proliferation stimulator.

USE - Used for promoting or accelerating soft tissue growth, for wound healing or treating mucocytis or inflammatory bowel disease. The KGF-2 polypeptides stimulate keratinocyte cell growth and proliferation and (I) is used to stimulate epithelial cell proliferation and basal keratinocytes for wound healing and to stimulate hair follicle production and healing of dermal wounds. These wounds may be of superficial nature or may be deep and involve damage of the dermis and the epidermis of skin. (I) Also promotes the healing of anastomotic and other wounds caused by surgical procedures in individuals which both heal wounds at a normal rate and are healing impaired. (I) may also be used to stimulate differentiation of cells, for example muscle cells, nervous tissue, prostate cells and lung cells.

(I) Is clinically useful in stimulating wound healing of wounds including surgical wounds, excisional wounds, deep wounds involving damage of the dermis and epidermis, eye tissue wounds, dental tissue wounds, oral cavity wounds, diabetic ulcers, dermal ulcers, cubitus ulcers, arterial ulcers, venous stasis ulcers, and burns resulting from heat exposure to extreme temperatures of heat or cold, or exposure to chemicals. (I) is useful for promoting the healing of wounds associated with ischemia and ischemic injury, e.g. chronic venous leg ulcers caused by an impairment of venous circulatory system return and/or insufficiency etc. The KGF-2 polypeptides in the formulation are used to stimulate epithelial cell proliferation and basal keratinocytes for the purposes of treating burns and skin defects such as psoriasis and epidermolysis bullosa, to increase the adherence of skin grafts to a wound bed and to stimulate re-epithelialization from the wound bed to reduce the side effects of gut toxicity that result from radiation, chemotherapy treatments or viral infections and to treat diseases and conditions of the liver, lung, kidney.

KGF-2 can be used to treat inflammatory bowel diseases, diabetes, thrombocytopenia, hypofibrinogenemia, hypoalbuminemia, hemorrhagic cystitis, xerostomia, keratoconjunctivitis sicca. KGF-2 can also be used to stimulate the epithelial cells of the salivary glands, lacrimal glands and stimulating the epithelial cells of the salivary glands, lacrimal glands and stimulating re-epithelialization of the sinuses and the growth of nasal mucosa.

ADVANTAGE - The composition is stable over prolonged periods of storage, has increased pharmacological activity or effectiveness of the polypeptide and/or allow facile application or administration of the polypeptide in therapeutic regimens.

pp; 101 DwgNo 0/5

Derwent Class: A96; B04

International Patent Class (Main): A61K-038/18

International Patent Class (Additional): A61K-038/17

2/7/8 (Item 7 from file: 351)

DIALOG(R) File 351:Derwent WPI

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013550068

WPI Acc No: 2001-034274/200105

Cholesteric macromolecular liquid crystal-formable compositions useful for image display and coloration

Patent Assignee: DAINICHISEIKA COLOR & CHEM MFG CO LTD (DAIC )

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No     | Kind | Date     | Applicat No | Kind | Date     | Week     |
|---------------|------|----------|-------------|------|----------|----------|
| JP 2000226581 | A    | 20000815 | JP 9926633  | A    | 19990203 | 200105 B |

Priority Applications (No Type Date): JP 9926633 A 19990203

Patent Details:

| Patent No     | Kind | Lan | Pg | Main IPC    | Filing Notes |
|---------------|------|-----|----|-------------|--------------|
| JP 2000226581 | A    |     | 9  | C09K-019/38 |              |

Abstract (Basic): JP 2000226581 A

NOVELTY - An energy-curing cholesteric macromolecular liquid crystal-formable composition comprises letting a cholesteric macromolecular liquid crystal-formable compound consisting mainly of an acyl derivative of hydroxyalkylcellulose contain an energy-curing compound.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for a manufacturing method for cholesteric macromolecular liquid crystals using the energy-curing cholesteric macromolecular liquid crystal-formable compositions and cholesteric macromolecular liquid crystals.

USE - The cholesteric macromolecular liquid crystals are useful for display of images, patterns and characters totally or partly colored and thus for information recording materials, information display materials, forgery-proof materials for bank notes, securities, visas and various cards, coupons and tickets, ornamental materials, artificial gems, advertisements, sign boards, doors, windows, show windows, coating materials, paint especially for design ones and moldings.

ADVANTAGE - The cholesteric macromolecular liquid crystals can be prepared from easily and economically available materials, can control and fix the pitch of the helical structure facilely and effectively and can develop a highly clear predetermined color.

pp; 9 DwgNo 0/2

Derwent Class: A11; A82; A85; E19; G02; L03; P81

International Patent Class (Main): C09K-019/38

International Patent Class (Additional): G02F-001/13; G02F-001/1333

2/7/9 (Item 8 from file: 351)

DIALOG(R) File 351:Derwent WPI

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013415668

WPI Acc No: 2000-587606/200055

Topical composition with a pH greater than 3.5, for treating aging or damaged skin, comprises ascorbic acid, non-toxic zinc salt, tyrosine compound and water

Patent Assignee: BIODERM INC (BIOD-N); MEISNER L F (MEIS-I)

Inventor: MEISNER L F

Number of Countries: 092 Number of Patents: 008

Patent Family:

| Patent No      | Kind | Date     | Applicat No   | Kind | Date     | Week     |
|----------------|------|----------|---------------|------|----------|----------|
| WO 200056327   | A1   | 20000928 | WO 2000US6886 | A    | 20000316 | 200055 B |
| AU 200040114   | A    | 20001009 | AU 200040114  | A    | 20000316 | 200103   |
| US 6217914     | B1   | 20010417 | US 99125356   | P    | 19990319 | 200123   |
|                |      |          | US 99356142   | A    | 19990719 |          |
| US 20010041193 | A1   | 20011115 | US 99125356   | P    | 19990319 | 200172   |
|                |      |          | US 99356142   | A    | 19990719 |          |
|                |      |          | US 2000732385 | A    | 20001207 |          |
| BR 200009158   | A    | 20011226 | BR 20009158   | A    | 20000316 | 200206   |
|                |      |          | WO 2000US6886 | A    | 20000316 |          |
| US 20020031557 | A1   | 20020314 | US 99125356   | P    | 19990319 | 200222   |
|                |      |          | US 99356142   | A    | 19990719 |          |
|                |      |          | US 2000732385 | A    | 20001207 |          |
|                |      |          | US 2001990611 | A    | 20011121 |          |
| US 20020037314 | A1   | 20020328 | US 99125356   | P    | 19990319 | 200225   |
|                |      |          | US 99356142   | A    | 19990719 |          |
|                |      |          | US 2000732385 | A    | 20001207 |          |
|                |      |          | US 2001997663 | A    | 20011129 |          |
| EP 1185260     | A1   | 20020313 | EP 2000919421 | A    | 20000316 | 200225   |
|                |      |          | WO 2000US6886 | A    | 20000316 |          |

Priority Applications (No Type Date): US 99356142 A 19990719; US 99125356 P 19990319; US 2000732385 A 20001207; US 2001990611 A 20011121; US 2001997663 A 20011129

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200056327 A1 E 22 A61K-031/195

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200040114 A A61K-031/195 Based on patent WO 200056327

US 6217914 B1 A61K-031/19 Provisional application US 99125356

US 20010041193 A1 A61K-033/32 Provisional application US 99125356

Cont of application US 99356142

Cont of patent US 6217914

BR 200009158 A A61K-031/195 Based on patent WO 200056327

US 20020031557 A1 A61K-033/32 Provisional application US 99125356

Cont of application US 99356142

Cont of application US 2000732385

Cont of patent US 6217914

US 20020037314 A1 A61K-033/30 Provisional application US 99125356

Cont of application US 99356142

CIP of application US 2000732385

Cont of patent US 6217914

EP 1185260 A1 E A61K-031/195 Based on patent WO 200056327

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI

Abstract (Basic): WO 200056327 A1

NOVELTY - Topical composition (I) with a pH of more than 3.5  
comprises at least 5.0% (w/v) ascorbic acid, water, a non-toxic zinc  
salt and a tyrosine compound.

ACTIVITY - Dermatological; antiinflammatory; antioxidant.

MECHANISM OF ACTION - None given.

USE - To protect and treat skin from damage due to exposure to  
radiation or chemicals, especially ultraviolet radiation (claimed),  
and to inhibit the effects of aging e.g. wrinkles.

pp; 22 DwgNo 0/0

Derwent Class: A96; B03; D21

International Patent Class (Main): A61K-031/19; A61K-031/195; A61K-033/30;  
A61K-033/32

International Patent Class (Additional): A61K-007/06; A61K-009/70;  
A61K-031/198; A61K-031/21; A61K-031/22; A61K-031/235; A61K-031/315;  
A61K-031/34; A61K-031/375; A61K-031/66; A61K-031/7008; A61K-033/04

2/7/10 (Item 9 from file: 351)

DIALOG(R)File 351:Derwent WPI

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013099359

WPI Acc No: 2000-271231/200023

Highly concentrated ascorbic acid compositions useful for improving skin  
appearance contain polyhydric alcohol, organic carbonate and minimal  
water

Patent Assignee: AVON PROD INC (AVON )

Inventor: COWTON L M; DUFFY J A; DUGGAN M C

Number of Countries: 087 Number of Patents: 005

Patent Family:

| Patent No     | Kind | Date     | Applicat No  | Kind | Date     | Week     |
|---------------|------|----------|--------------|------|----------|----------|
| WO 200015221  | A1   | 20000323 | WO 99US19793 | A    | 19990830 | 200023 B |
| AU 9957923    | A    | 20000403 | AU 9957923   | A    | 19990830 | 200034   |
| EP 1033985    | A1   | 20000913 | EP 99945302  | A    | 19990830 | 200046   |
|               |      |          | WO 99US19793 | A    | 19990830 |          |
| US 6299889    | B1   | 20011009 | US 98150806  | A    | 19980910 | 200162   |
| MX 2000004476 | A1   | 20001101 | MX 20004476  | A    | 20000509 | 200163   |

Priority Applications (No Type Date): US 98150806 A 19980910

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200015221 A1 E 27 A61K-031/375

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN  
CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ  
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW

AU 9957923 A A61K-031/375 Based on patent WO 200015221

EP 1033985 A1 E A61K-031/375 Based on patent WO 200015221

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LU MC NL PT SE

US 6299889 B1 A61K-006/00

MX 2000004476 A1 A61K-031/375

Abstract (Basic): WO 200015221 A1

NOVELTY - Compositions comprising polyhydric alcohol, organic

carbonate, high concentrations of ascorbic acid and minimal water, useful for improving skin appearance, are new.

DETAILED DESCRIPTION - A composition comprising ascorbic acid, polyhydric alcohol, organic carbonate and water is new.

INDEPENDENT CLAIMS are included for:

(A) a process for preparing a stable homogenous ascorbic acid composition comprising (1) the preparation of a mixture comprised of ascorbic acid, polyhydric alcohol, organic carbonate and water, and (2) filtering the mixture to remove insoluble particles; and

(B) a method for improving skin appearance comprising (1) topically applying the composition prepared in (A) above and (2) applying a moisturizer to the same area of skin.

ACTIVITY - Cosmetic; anti-wrinkle; collagen synthesis adjuvant; ultraviolet dermal protector.

MECHANISM OF ACTION - Lipid metabolism antioxidant; age-related melanin formation inhibitor.

USE - Useful as a cosmetic for improving skin appearance, reducing the occurrence of wrinkles, preventing aging-related melanin formation and preventing ultraviolet radiation damage to skin.

ADVANTAGE - The composition is water-soluble and has long-term stability. It allows an efficacious concentration of ascorbic acid to be absorbed following topical application to the skin.

pp; 27 DwgNo 0/0

Derwent Class: A96; B03; D21

International Patent Class (Main): A61K-006/00; A61K-031/375

International Patent Class (Additional): A61K-031/34

2/7/11 (Item 10 from file: 351)

DIALOG(R) File 351:Derwent WPI

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012923714 \*\*Image available\*\*

WPI Acc No: 2000-095550/200008

Non-woven cellulosic fiber web used in variety of packaging formats to pack variety of items

Patent Assignee: CELLRESIN TECHNOLOGIES LLC (CELL-N)

Inventor: BEAVERSON N J; WOOD W E

Number of Countries: 028 Number of Patents: 008

Patent Family:

| Patent No     | Kind | Date     | Applicat No   | Kind | Date     | Week   |   |
|---------------|------|----------|---------------|------|----------|--------|---|
| US 5985772    | A    | 19991116 | US 94264771   | A    | 19940623 | 200008 | B |
|               |      |          | US 96603337   | A    | 19960220 |        |   |
|               |      |          | US 98111263   | A    | 19980706 |        |   |
| WO 200001527  | A1   | 20000113 | WO 99US8017   | A    | 19990413 | 200011 |   |
| EP 1094940    | A1   | 20010502 | EP 99917438   | A    | 19990413 | 200125 |   |
|               |      |          | WO 99US8017   | A    | 19990413 |        |   |
| BR 9912515    | A    | 20010502 | BR 9912515    | A    | 19990413 | 200129 |   |
|               |      |          | WO 99US8017   | A    | 19990413 |        |   |
| CN 1308577    | A    | 20010815 | CN 99808239   | A    | 19990413 | 200174 |   |
| KR 2001071769 | A    | 20010731 | KR 2001700236 | A    | 20010106 | 200208 |   |
| TW 446785     | A    | 20010721 | TW 99110344   | A    | 19990621 | 200219 |   |
| JP 2002519221 | W    | 20020702 | WO 99US8017   | A    | 19990413 | 200246 |   |
|               |      |          | JP 2000557954 | A    | 19990413 |        |   |

Priority Applications (No Type Date): US 98111263 A 19980706; US 94264771 A 19940623; US 96603337 A 19960220

Patent Details:

| Patent No  | Kind | Lan | Pg          | Main IPC | Filing Notes                   |
|------------|------|-----|-------------|----------|--------------------------------|
| US 5985772 | A    | 23  | B32B-027/06 |          | CIP of application US 94264771 |
|            |      |     |             |          | CIP of application US 96603337 |

CIP of patent US 5492947

CIP of patent US 5776842

WO 200001527 A1 E B32B-023/08  
 Designated States (National): BR CA CN JP KR MX SG  
 Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
 MC NL PT SE

EP 1094940 A1 E B32B-023/08 Based on patent WO 200001527  
 Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI NL  
 PT SE

BR 9912515 A B32B-023/08 Based on patent WO 200001527  
 CN 1308577 A B32B-023/08  
 KR 2001071769 A D21H-019/84  
 TW 446785 A D21H-019/84  
 JP 2002519221 W 64 B32B-023/08 Based on patent WO 200001527

Abstract (Basic): US 5985772 A

NOVELTY - The web comprises structural, barrier and clay layers.  
 The structural layer comprises a continuous array of randomly oriented cellulosic fiber at product and exterior side. The barrier layer comprises diluent and a cyclodextrin compound which acts as barrier to the passage of permeant in the ambient environment or as a trap of contaminant and is free of complex compounds

USE - The cellulosic web containing cyclodextrin or compatible derived cyclodextrin is used in variety of packaging formats to pack a variety of items, such as pouches and bags. The cellulosic web is used as a means of paper closure on rigid plastic containers which can be rectangular, circular, square or possessing other shaped cross-sections with a flat bottom and open top. The cellulosic web coated on the container is used for blister pack packaging, clamp shell type enclosures, tubs, and trays. The cellulosic web is also used for packaging coffee, ready to eat cereal, crackers, pasta, cookies, frozen pizza, candy, cocoa or other chocolate products, dry mix gravies, soup, snack foods such as chips, crackers and popcorn, baked foods, pastries, breads, dry pet food such as cat food, butter or butter-flavoured notes which can be used in microwave popcorn manufacture in paper containers, meat products, fruit and nuts. The cellulosic web including paper boards and corrugated paper boards is used in various types of packages.

Corrugated medium bleached or unbleached paper board is used for folded packaging of corrugated container boxes and folding cartons. The flexible containers are used for bags, sacks, pouches, wrappers and labeled items made from paper laminates comprising web film or foil clay coated paper laminate, thermoplastic paper laminate or multilayer paper laminate.

ADVANTAGE - The non-cellulosic fiber web has improved barrier trap properties in the presence of permeant and contaminant. The barrier paper board material reduces the passage of permeant material from the ambient atmosphere. Mobile or volatile organic contaminant from the environment present within the paper board or from any contaminant in recycled material can be trapped by the active barrier material. The barrier coating resists the passage of water, water vapor, oxygen, carbon dioxide, hydrogen sulfide, solvent, grease, fat, oil, odor, recycled contaminants and other chemicals present during paper board manufacture. The paper board containing barrier layer acts as a barrier to the passage of contaminant and as a trap for contaminant that can raise new materials.

DESCRIPTION OF DRAWING(S) - The figure shows a cross-sectional view of the cellulosic web.

Printed layer (220)

Clay layer (230)

Paper board (240)  
 Diluent layer. (250)  
 pp; 23 DwgNo 4/4  
 Derwent Class: A18; A23; A92; D13; F09; G02; P73  
 International Patent Class (Main): B32B-023/08; B32B-027/06; D21H-019/84  
 International Patent Class (Additional): B32B-027/10; B32B-027/32

2/7/12 (Item 11 from file: 351)  
 DIALOG(R) File 351:Derwent WPI  
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012437466

WPI Acc No: 1999-243574/199920

Novel encapsulated electrophoretic displays and their preparation  
 Patent Assignee: E-INK CORP (EINK-N)  
 Inventor: ALBERT J D; CAMISKEY B; DRZAIC P; FEENEY R; JACOBSON J M; LOXLEY  
 A; MORRISON I; ZHANG L; COMISKEY B  
 Number of Countries: 082 Number of Patents: 004  
 Patent Family:

| Patent No  | Kind | Date     | Applicat No  | Kind | Date     | Week     |
|------------|------|----------|--------------|------|----------|----------|
| WO 9910767 | A1   | 19990304 | WO 98US17734 | A    | 19980827 | 199920 B |
| AU 9892063 | A    | 19990316 | AU 9892063   | A    | 19980827 | 199930   |
| EP 1010036 | A1   | 20000621 | EP 98944544  | A    | 19980827 | 200033   |
|            |      |          | WO 98US17734 | A    | 19980827 |          |
| BR 9814456 | A    | 20001003 | BR 9814456   | A    | 19980827 | 200053   |
|            |      |          | WO 98US17734 | A    | 19980827 |          |

Priority Applications (No Type Date): US 9876978 P 19980305; US 9757118 P  
 19970828; US 9757122 P 19970828; US 9757133 P 19970828; US 9757163 P  
 19970828; US 9757716 P 19970828; US 9757798 P 19970828; US 9757799 P  
 19970828; US 9759358 P 19970919; US 9759543 P 19970919; US 97935800 A  
 19970923; US 9765605 P 19971118; US 9765629 P 19971118; US 9765630 P  
 19971118; US 9766147 P 19971119; US 9766245 P 19971120; US 9766246 P  
 19971120; US 9766115 P 19971121; US 9766334 P 19971121; US 9766418 P  
 19971124; US 9870935 P 19980109; US 9870939 P 19980109; US 9870940 P  
 19980109; US 9872390 P 19980109; US 9871371 P 19980115; US 9874454 P  
 19980212; US 9876955 P 19980305; US 9876956 P 19980305; US 9876957 P  
 19980305; US 9876959 P 19980305; US 9876933 P 19980305

Patent Details:

| Patent No  | Kind | Lan Pg | Main IPC     | Filing Notes               |
|--|------|--------|--------------|----------------------------|
| WO 9910767   | A1   | E 69   | G02F-001/167 |                            |
| Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU<br>CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR<br>LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM<br>TR TT UA UG UZ VN YU ZW |      |        |              |                            |
| Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR<br>IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW  |      |        |              |                            |
| AU 9892063   | A    |        |              | Based on patent WO 9910767 |
| EP 1010036   | A1   | E      | G02F-001/167 | Based on patent WO 9910767 |
| Designated States (Regional): CH DE FR GB IT LI NL   |      |        |              |                            |
| BR 9814456   | A    |        | G02F-001/167 | Based on patent WO 9910767 |

Abstract (Basic): WO 9910767 A1

NOVELTY - The display comprising: anisotropic particles dispersed in a suspending fluid; and second particles, the anisotropic particles ordering into an optically transparent state upon application of a first electric field and the second particles translating to disorder the anisotropic microparticles into an optically scattering or absorbing state upon applying a second electric field.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the

following:

(A) A multi-color, encapsulated electrophoretic display comprising at least 3 species of particles, each having substantially non-overlapping electrophoretic mobilities. The multi-color display predominantly displays one of the species of particles in response to a sequence of electrical pulses controlled in both time and amplitude;

(B) Creation of an encapsulated electrophoretic display, comprising:

(a) encapsulating a dye in a suspending fluid into first capsules; and

(b) encapsulating the first capsules into a second capsule in a binder;

(c) Providing a binder;

(d) curing the binder; and

(e) applying a mechanical force to the binder; whereby application of the force causes the binder to form capsule(s) in a non - spherical shape.

USE - None given.

ADVANTAGE - The displays are printable, flexible, easy and inexpensive to manufacture, have good long-term image quality and consume little or no power. The degree of bistability of the display can be controlled through appropriate chemical modification of the electrophoretic particles, suspending fluid, capsule and binder materials.

pp; 69 DwgNo 0/13

Derwent Class: A89; E21; E22; E23; E24; L03; P81; U14

International Patent Class (Main): G02F-001/167

2/7/13 (Item 12 from file: 351)

DIALOG(R) File 351:Derwent WPI

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012115857

WPI Acc No: 1998-532769/199846

Liquid crystal ester compounds for special-effect paint - comprise mixed ester(s) derived from hydroxyalkyl - cellulose ether and a mixture of saturated carboxylic acid and unsaturated mono or dicarboxylic acid

Patent Assignee: BASF AG (BADI)

Inventor: KELLER H; MAXEIN G; MUELLER M; ZENTEL R

Number of Countries: 022 Number of Patents: 002

Patent Family:

| Patent No   | Kind | Date     | Applicat No | Kind | Date     | Week     |
|-------------|------|----------|-------------|------|----------|----------|
| DE 19713638 | A1   | 19981008 | DE 1013638  | A    | 19970402 | 199846 B |
| WO 9844073  | A1   | 19981008 | WO 98EP1893 | A    | 19980401 | 199846   |

Priority Applications (No Type Date): DE 1013638 A 19970402

Patent Details:

| Patent No   | Kind | Lan | Pg | Main IPC    | Filing Notes |
|-------------|------|-----|----|-------------|--------------|
| DE 19713638 | A1   |     | 5  | C08B-013/00 |              |
| WO 9844073  | A1   | G   |    | C09K-019/38 |              |

Designated States (National): CN JP KR US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

Abstract (Basic): DE 19713638 A

Liquid crystal (LC) or cholesteric mixed esters (I) derived from (a) hydroxyalkyl ethers of cellulose with (b) saturated aliphatic or aromatic carboxylic acids and (c) unsaturated mono- or di-carboxylic acids are new.

Also claimed are (i) LC or cholesteric polymers (LCP) obtained by

radiation -hardening of (I), (ii) pigments containing LCP, (iii) coating materials, especially paints, containing (I) or LCP-containing pigments, (iv) a process for the production of (I) by reacting a mixture of the acid chlorides of (b) and (c) with component (a), and (v) a process for the production of pigments by pulverising LCP under mild thermal conditions, especially in an air-jet mill.

USE - Esters (I) or polymers (LCP) or LCP-containing pigments are used for the production of optical components or as coating materials, and esters (I) are used as colouring agents, especially as colour components of paint systems for coating surfaces or as components of printing ink (claimed). Applications include painting or coating cars, motorbikes, packaging, labels and ornamental articles.

ADVANTAGE - Esters (I) are one-component systems with better handling properties than esters of (a) and (c) alone (particularly with regard to spontaneous crosslinking), which act as thermotropic systems without the aid of solvents. This enables the economical production of LCP with good storage stability and with a precisely adjustable and uniform colour which can be permanently fixed to give a particularly impressive colour effect.

Dwg.0/0

Derwent Class: A11; A14; A82; A89; G02; L03

International Patent Class (Main): C08B-013/00; C09K-019/38

International Patent Class (Additional): C08J-003/28; C09B-067/20;

C09D-005/36; C09D-011/02; C09D-017/00; C09K-019/00

2/7/14 (Item 13 from file: 351)

DIALOG(R)File 351:Derwent WPI

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012004958

WPI Acc No: 1998-421868/199836

Ablation recording material - comprises a substrate with a colour material layer on one side and contains the nitrate of carboxyalkylcellulose

Patent Assignee: FUJI PHOTO FILM CO LTD (FUJF )

Inventor: ISHIHARA M; ITO T; OBAYASHI T; WATANABE K

Number of Countries: 002 Number of Patents: 002

Patent Family:

| Patent No   | Kind | Date     | Applicat No | Kind | Date     | Week     |
|-------------|------|----------|-------------|------|----------|----------|
| JP 10175372 | A    | 19980630 | JP 96338724 | A    | 19961218 | 199836 B |
| US 6261739  | B1   | 20010717 | US 97924660 | A    | 19970905 | 200142   |

Priority Applications (No Type Date): JP 96338724 A 19961218; JP 96240170 A 19960911; JP 96240171 A 19960911

Patent Details:

| Patent No   | Kind | Lan | Pg          | Main IPC | Filing Notes |
|-------------|------|-----|-------------|----------|--------------|
| JP 10175372 | A    | 14  | B41M-005/26 |          |              |
| US 6261739  | B1   |     | B41M-005/26 |          |              |

Abstract (Basic): JP 10175372 A

An ablation recording material to be heated imagewise by irradiating it with laser rays comprises a substrate provided with at least one colour material layer on the one side and contains the nitrate of carboxyalkylcellulose having the substitution degree of nitrate group of 0.2-2.8 per anhydrous glucose unit in at least one layer in the colour material layer side. Irradiation is carried out from the colour material layer side.

USE - As an ablation recording material which has low Dmin in irradiated parts with laser rays and also, can be prepared by the use of binder easy to handle.

ADVANTAGE - The ablation recording material has matte effects if it is provided with an over coat layer on the colour material layer.

Dwg.0/0

Derwent Class: All; A89; G05; G06; L03; P75

International Patent Class (Main): B41M-005/26

International Patent Class (Additional): C08B-005/02; C09K-003/00

2/7/15 (Item 14 from file: 351)

DIALOG(R)File 351:Derwent WPI

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007869652

WPI Acc No: 1989-134764/198918

Cheese of good thermal resistance - contg. cellulose ether, water soluble alginate and e.g. calcium chloride

Patent Assignee: FUJI OIL CO LTD (FUKO ); SHIN-ETSU CHEMICAL CO (SHIE )

Number of Countries: 002 Number of Patents: 003

Patent Family:

| Patent No   | Kind | Date     | Applicat No | Kind | Date     | Week     |
|-------------|------|----------|-------------|------|----------|----------|
| JP 1080252  | A    | 19890327 | JP 87235448 | A    | 19870918 | 198918 B |
| US 4997669  | A    | 19910305 | US 88268545 | A    | 19881107 | 199112 N |
| JP 94040798 | B2   | 19940601 | JP 87235448 | A    | 19870918 | 199420   |

Priority Applications (No Type Date): JP 87235448 A 19870918; US 88268545 A 19881107

Patent Details:

| Patent No   | Kind | Lan | Pg | Main IPC     | Filing Notes               |
|-------------|------|-----|----|--------------|----------------------------|
| JP 1080252  | A    |     | 5  |              |                            |
| JP 94040798 | B2   |     |    | A23C-019/086 | Based on patent JP 1080252 |

Abstract (Basic): JP 1080252 A

A new sort of cheeses can be prep'd. by addn. of cellulose either with 26-33% of methoxy radicals, water soluble alginate and Ca salt e.g. CaCl<sub>2</sub> or the like into a material mixt. for common cheeses.

USE - Good thermal resistance esp. for microwave irradiation of cheeses can be attained.

0/0

Abstract (Equivalent): US 4997669 A

Dehydrated cheese is produced by (a) admixing cheese, water and cellulose ether in amt. 0.5-6 wt.% w.r.t. solid matter of cheese to form a water-contg. paste; (b) shaping the paste; and (c) drying while maintaining its shape so that water content is 10 wt.% or less.

Cellulose ether has methoxy gp. content 26-33 wt.% and comprises methyl cellulose and/or hydroxyalkylmethyl cellulose. Opt. cheese includes a water-soluble alginate and Ca-salt.

ADVANTAGE - Has improved shape retention against microwave irradiation heating. (6pp)

Derwent Class: D13

International Patent Class (Main): A23C-019/086

International Patent Class (Additional): A23C-019/08; A23C-019/093; A23L-001/05

2/7/16 (Item 15 from file: 351)

DIALOG(R)File 351:Derwent WPI

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003485113

WPI Acc No: 1982-33075E/198216

Film able to adhere to mucous membrane - consists of water-soluble high

polymer film contg. drug and with one side made resistant to water soln.  
 Patent Assignee: KIZAWA H (KIZA-I); NIPPON SODA CO (NIPS )  
 Inventor: FUJIYAMA N; ITO A; KOBAYASHI J  
 Number of Countries: 008 Number of Patents: 005  
 Patent Family:

| Patent No   | Kind | Date     | Applicat No | Kind | Date     | Week     |
|-------------|------|----------|-------------|------|----------|----------|
| WO 8201129  | A    | 19820415 |             |      |          | 198216 B |
| JP 57058615 | A    | 19820408 | JP 80133947 | A    | 19800926 | 198220   |
| EP 63604    | A    | 19821103 |             |      |          | 198245   |
| US 4517173  | A    | 19850514 | US 82385647 | A    | 19820525 | 198522   |
| JP 88018923 | B    | 19880420 |             |      |          | 198819   |

Priority Applications (No Type Date): JP 80133947 A 19800926  
 Cited Patents: JP 50105814; JP 55062012; JP 56020514; JP 56036413  
 Patent Details:

| Patent No                                    | Kind | Lan | Pg | Main IPC | Filing Notes |
|--|------|-----|----|----------|--------------|
| WO 8201129                                   | A    | J   | 22 |          |              |
| Designated States (National): AT US          |      |     |    |          |              |
| Designated States (Regional): CH DE FR GB NL |      |     |    |          |              |
| EP 63604                                     | A    | J   |    |          |              |
| Designated States (Regional): CH DE FR GB NL |      |     |    |          |              |

Abstract (Basic): WO 8201129 A

Water soluble high polymer film contg. a drug and with one side made resistant to solution in water maintains good adhesion to mucous membrane e.g. in the mouth, etc. The drug is suitably a slow release agent, e.g. prednisolone or allantoin. The water soluble high polymer is, e.g., hydroxy propyl cellulose (HPC), methyl cellulose, hydroxy propyl alkyl cellulose, carboxy methyl cellulose, polyacrylic acid or a sodium, potassium or ammonium salt thereof, an acrylic acid copolymer with styrene or methacrylic acid, polyvinyl alcohol, polyvinyl alcohol, polyvinyl pyrrolidone, or polyalkylene glycol. Water solution resistance is imparted to one side of the high polymer film by radiation or infrared ray treatment to cause local crosslinking, or by treatment with an agent, e.g., shellac, stearic acid, palmitic acid or similar higher fatty acid, or cellulose such as ethyl cellulose or cellulose acetate. Pref., a 1st soln. contg. the drug and the water soluble high polymer and a 2nd soln. contg. a water solution resistance agent and the water soluble high polymer are separately ppd., e.g., using water or ethanol as solvent, a film of one soln. is coated on a substrate with good release qualities, e.g. Teflon (RTM) or glass, then this film is coated with the other soln. and the solvent is removed, e.g. by heating at normal press. or under vacuum. Suitable wt. ratios in the 2nd soln. are HPC : shellac = 9 : 1 - 1 : 9; HPC : higher fatty acid = 9 : 1 - 7 : 3. An intermediate layer, e.g. HPC and Macrogall 400 dissolved in ethyl alcohol, may be provided between the 1st and 2nd soln. layers. (22pp)

Abstract (Equivalent): US 4517173 A

Film adhering to mucous membranes consists of at least 3 layers a) a pharmaceutical layer consisting of prednisolone and allantoin together with a water soluble OH-propyl cellulose, Me cellulose and/or OH-propyl Me cellulose as a thin film base, b) in intermediate layer consisting of a water soluble cellulose and free from pharmaceutical agents and free from sparingly water soluble cpds. and c) a sparingly water soluble layer consisting of a water soluble cellulose and sparingly water soluble shellac and/or higher fatty acids. The film has a flat surface to be applied to the mouth cavity and to adhere to a mucous membrane.

The water soluble cellulose derivs. are selected to have superior film mouldability to produce a soft flexible film and the cellulose derivs. gradually discharge the effective components in the mouth.

USE/ADVANTAGE - As a more effective and comfortable way of applying medicaments to ulcerated or inflamed parts of mucous membranes. (7pp)  
 Derwent Class: A96; B04; B07; P32; P34  
 International Patent Class (Additional): A61F-013/00; A61K-009/70;  
 A61L-015/03

2/7/17 (Item 16 from file: 351)  
 DIALOG(R) File 351:Derwent WPI  
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001594567

WPI Acc No: 1976-28968X/197616

Polyester under-coating compsn - contg hydroxy- alkyl cellulose ,  
 gelatin, resorcinol, olefinic and epoxy organics  
 Patent Assignee: MITSUBISHI PAPER MILLS LTD (MITY )  
 Number of Countries: 001 Number of Patents: 002  
 Patent Family:  

| Patent No   | Kind | Date     | Applicat No | Kind | Date | Week     |
|-------------|------|----------|-------------|------|------|----------|
| JP 51025571 | A    | 19760302 |             |      |      | 197616 B |
| JP 82003930 | B    | 19820123 |             |      |      | 198207   |

Priority Applications (No Type Date): JP 7498565 A 19740828

Abstract (Basic): JP 51025571 A

A compsn. comprises a liquid contg. a hydroxy- alkyl cellulose of the formula I (R: -(CH<sub>2</sub>-CH<sub>2</sub>-O)-mH or -(CH<sub>2</sub>-CH-O)-mH; n, m: integer 1), gelatin and resorcinol (at mixing ratio of 0.1-2:1:2-20 by wt.) and at least one active olefinic organic cpd. (preferably those of the formula II (N: 2-4; R: di- tri- or tetravalent organic or inorganic residual group)) and epoxy type organic compounds (preferably, those of the formula III(n, R: the same as the formula II)) in an amount of 30 wt. % (solid base) based on the gelatin. The compsn. used as an under-coating liquid has increased stability to ultraviolet radiation and the exhaust gas produced after drying does not generate poisonous gases upon burning.

Derwent Class: A11; A23; A89; G06; P42; P83

International Patent Class (Additional): B05D-005/00; C08J-007/04;

G03C-001/76

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?ds

| Set  | Items   | Description  |
|--|---------|--|
| S1   | 18      | (ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?) AND (PREPAR? OR PREP OR MANUF? OR PRODUC?) AND (IRRAD? OR RADIAT? OR GAMMA(W)RAY?) |
| S2   | 17      | RD (unique items)  |
| ?s (alkyl(w)cellulose? or alkylcellulose?) (s)self(w)link?                           |         |  |
| Processing   |         |  |
| Processed 10 of 15 files ...   |         |  |
| Completed processing all files   |         |  |
|  | 884549  | ALKYL  |
|  | 391700  | CELLULOSE?   |
|  | 1781    | ALKYL(W)CELLULOSE?   |
|  | 540     | ALKYLCELLULOSE?  |
|  | 1292540 | SELF   |
|  | 1986384 | LINK?  |
| S3   | 0       | (ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?) (S)SELF(W)LINK?  |
| ?s (alkyl(w)cellulose? or alkylcellulose?) (s) self(w) (cross(w)link? or crosslink?) |         |  |
|  | 884549  | ALKYL  |

391700 CELLULOSE?  
 1781 ALKYL(W)CELLULOSE?  
 540 ALKYLCELLULOSE?  
 1292540 SELF  
 1881715 CROSS  
 1986384 LINK?  
 209431 CROSS(W)LINK?  
 230191 CROSSLINK?  
 S4 4 (ALKYL(W)CELLULOSE? OR ALKYLCELLULOSE?)(S)  
 SELF(W)(CROSS(W)LINK? OR CROSSLINK?)

?rd

>>>Duplicate detection is not supported for File 342.  
 >>>Duplicate detection is not supported for File 345.  
 >>>Duplicate detection is not supported for File 347.  
 >>>Duplicate detection is not supported for File 351.

>>>Records from unsupported files will be retained in the RD set.  
 ...completed examining records  
 S5 4 RD (unique items)  
 ?t5/7/1-4

5/7/1 (Item 1 from file: 345)  
 DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat  
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16651429  
 No legal status available

5/7/2 (Item 1 from file: 347)  
 DIALOG(R)File 347:JAPIO  
 (c) 2002 JPO & JAPIO. All rts. reserv.

06775229  
 SELF - CROSSLINKED ALKYLCELLULOSE DERIVATIVE, AND ITS PRODUCTION

PUB. NO.: 2001-002703 [JP 2001002703 A]  
 PUBLISHED: January 09, 2001 (20010109)  
 INVENTOR(s): YOSHII FUMIO  
 KUME TAMIKAZU  
 MURAKAMI TEI  
 APPLICANT(s): JAPAN ATOM ENERGY RES INST  
 DAICEL CHEM IND LTD  
 APPL. NO.: 11-177517 [JP 99177517]  
 FILED: June 23, 1999 (19990623)

#### ABSTRACT

PROBLEM TO BE SOLVED: To obtain the subject derivative which has excellent biodegradability and further has excellent water absorbability, by irradiating a mixture comprising an alkylcellulose derivative and water with radiations.

SOLUTION: This method for producing a self - crosslinked alkylcellulose derivative comprises irradiating a mixture comprising (A) 100 pts.wt. of an alkylcellulose derivative as a raw material (the alkyl group has one to three carbon atoms and may be substituted by one or more hydroxyl groups, or the like) and (B) 5 to 2,000 pts.wt. of water with radiations. The component A is preferably a carboxyalkylcellulose, a hydroxyalkylcellulose, an alkylcellulose or their mixture, which has at least one hydroxyl group or carboxyl group per glucose unit. 20% or more of the total amount of the hydroxyl groups and carboxyl groups of the component A is especially

preferably their alkali metal salts, ammonium salts or amine salts.

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5/7/3 (Item 1 from file: 351)  
 DIALOG(R)File 351:Derwent WPI  
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013819299

WPI Acc No: 2001-303511/200132

Manufacture of self crosslinked alkyl cellulose derivative used as soil conditioner in agriculture, is obtained by irradiating gamma rays on mixture of alkyl cellulose derivative and water  
 Patent Assignee: DAICEL CHEM IND LTD (DAIL ); JAPAN ATOMIC ENERGY RES INST (JAAT )

Number of Countries: 001 Number of Patents: 001

Patent Family:

| Patent No     | Kind | Date     | Applicat No | Kind | Date     | Week     |
|---------------|------|----------|-------------|------|----------|----------|
| JP 2001002703 | A    | 20010109 | JP 99177517 | A    | 19990623 | 200132 B |

Priority Applications (No Type Date): JP 99177517 A 19990623

Patent Details:

| Patent No     | Kind | Lan | Pg | Main IPC    | Filing Notes |
|---------------|------|-----|----|-------------|--------------|
| JP 2001002703 | A    |     | 9  | C08B-015/10 |              |

Abstract (Basic): JP 2001002703 A

NOVELTY - Self - crosslinked alkyl cellulose derivative is obtained by irradiating gamma-rays on a mixture containing 100 weight parts (wt.pts) of 1-3C alkyl cellulose derivative as raw material and 5-2000 wt.pts of water.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for self - crosslinked alkyl cellulose derivative.

USE - As a ground modifier in engineering works, soil conditioner in agriculture and horticultural field, water retention agent, coating agent, adhesive, poultice and soft ice cream.

ADVANTAGE - Self - crosslinked type alkyl cellulose derivative is an excellent water absorbent and has self biodegrading ability.

pp; 9 DwgNo 0/6

Derwent Class: All; A82; A97; C04; D14; D22; F09; G02

International Patent Class (Main): C08B-015/10

International Patent Class (Additional): C08J-003/24; C08J-003/28; C08L-001-08; C09D-101/28; C09D-101/32; C09J-101/28; C09J-101/32

5/7/4 (Item 2 from file: 351)  
 DIALOG(R)File 351:Derwent WPI  
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009635920

WPI Acc No: 1993-329469/199342

Water-swellaable, water-insol. modified polysaccharide - obtd. by forming a mixt. of water-soluble modified polysaccharide, water and a crosslinking agent, recovering the polysaccharide and heat treating the prod.

Patent Assignee: KIMBERLY CLARK CORP (KIMB ); KIMBERLY-CLARK WORLDWIDE INC (KIMB ); KIMBERLY-CLARK CORP (KIMB )

Inventor: QIN J

Number of Countries: 013 Number of Patents: 014

Patent Family:

| Patent No   | Kind | Date     | Applicat No | Kind | Date     | Week     |
|-------------|------|----------|-------------|------|----------|----------|
| EP 566118   | A1   | 19931020 | EP 93106150 | A    | 19930415 | 199342 B |
| AU 9336949  | A    | 19931021 | AU 9336949  | A    | 19930415 | 199349   |
| CA 2076732  | A    | 19931018 | CA 2076732  | A    | 19920824 | 199403   |
| JP 6025303  | A    | 19940201 | JP 9356262  | A    | 19930317 | 199409   |
| AU 9654638  | A    | 19960801 | AU 9336949  | A    | 19930415 | 199638   |
|             |      |          | AU 9654638  | A    | 19960531 |          |
| AU 673158   | B    | 19961031 | AU 9336949  | A    | 19930415 | 199651   |
| EP 566118   | B1   | 19970917 | EP 93106150 | A    | 19930415 | 199742   |
| DE 69313908 | E    | 19971023 | DE 613908   | A    | 19930415 | 199748   |
|             |      |          | EP 93106150 | A    | 19930415 |          |
| ES 2107574  | T3   | 19971201 | EP 93106150 | A    | 19930415 | 199803   |
| AU 690844   | B    | 19980430 | AU 9336949  | A    | 19930415 | 199829   |
|             |      |          | AU 9654638  | A    | 19960531 |          |
| MX 187502   | B    | 19971217 | MX 931563   | A    | 19930319 | 199936   |
| KR 244422   | B1   | 20000201 | KR 934776   | A    | 19930326 | 200118   |
| JP 3221963  | B2   | 20011022 | JP 9356262  | A    | 19930317 | 200169   |
| EP 566118   | B2   | 20011017 | EP 93106150 | A    | 19930415 | 200169   |

Priority Applications (No Type Date): US 92870529 A 19920417

Cited Patents: 2.Jnl.Ref; GB 1086323; JP 4120142; JP 56084701; JP 4120142

#### Patent Details:

| Patent No   | Kind | Lan | Pg | Main IPC     | Filing Notes                     |
|---|------|-----|----|--------------|----------------------------------|
| EP 566118   | A1   | E   | 20 | C08B-037/00  |                                  |
| Designated States (Regional): BE DE ES FR GB IT NL SE |      |     |    |              |                                  |
| AU 9336949  | A    |     |    | C08B-015/10  |                                  |
| CA 2076732  | A    |     |    | C08B-011/12  |                                  |
| JP 6025303  | A    |     | 13 | C08B-037/00  |                                  |
| AU 9654638  | A    |     |    | C08B-015/10  | Div ex application AU 9336949    |
| AU 673158   | B    |     |    | C08B-015/10  | Previous Publ. patent AU 9336949 |
| EP 566118   | B1   | E   | 22 | C08B-037/00  |                                  |
| Designated States (Regional): BE DE ES FR GB IT NL SE |      |     |    |              |                                  |
| DE 69313908   | E    |     |    | C08B-037/00  | Based on patent EP 566118        |
| ES 2107574  | T3   |     |    | C08B-037/00  | Based on patent EP 566118        |
| AU 690844   | B    |     |    | C08B-015/10  | Div ex application AU 9336949    |
|   |      |     |    |              | Previous Publ. patent AU 9654638 |
| MX 187502   | B    |     |    | C08B-015/010 |                                  |
| KR 244422   | B1   |     |    | C08B-037/00  |                                  |
| JP 3221963  | B2   |     | 14 | C08B-037/00  | Previous Publ. patent JP 6025303 |
| EP 566118   | B2   | E   |    | C08B-037/00  |                                  |
| Designated States (Regional): BE DE ES FR GB IT NL SE |      |     |    |              |                                  |

#### Abstract (Basic): EP 566118 A

Method comprises: forming a mixt. comprising a water-soluble modified polysaccharide, water and a cross-linking agent; recovering the modified polysaccharide from the mixt.; and heat treating the prod. at above 80 deg.C to crosslink and render it water insol. Also claimed is the polysaccharide produced.

Pref. the modified polysaccharide is selected from a carboxylated, sulphonated, sulphated or phosphated derivs. of polysaccharides and/or their salts (esp. carboxyalkyl cellulose, mor esp. carboxymethyl cellulose). The crosslinking agent is an organic cpd. comprising at least two functional gps. capable of reacting with a carboxyl or hydroxyl gp. of a polysaccharide (esp. diamines, polyamines, diols and/or polyols, more esp. chitosan glutamate, type of gelatin, diethylenetriamine, ethylene glycol, butylene glycol, polyvinyl alcohol, hyaluronic acid, polyethylene imine and/or their derivs.. The recovered modified polysaccharide is heat-treated to cause cross-linking or the crosslinking involves self - crosslinking through esterification. When the crosslinking agent is a diamine or polyamine, the recovered modified polysaccharide is heat-treated to

cause crosslinking formed by esterification and amidation.

USE/ADVANTAGE - The polysaccharide produced has good absorption properties similar to the synthetic highly absorptive materials and is suitable for use in personal care absorbent prods. such as diapers, training pants and feminine care prods..

Dwg.0/3

Abstract (Equivalent): EP 566118 B

A method for producing a water-swellaable, water-insoluble modified polysaccharide, the method comprises: (i) forming a mixture comprising a water-soluble modified polysaccharide, water and a crosslinking agent, where the water-soluble modified polysaccharide dissolves into the water, and where the modified polysaccharide is selected from carboxylated, sulphonated, sulphated, and phosphated derivatives of polysaccharides, their salts, and mixtures of it; (ii) recovering the modified polysaccharide and the crosslinking agent from the mixture; and (iii) heat-treating the recovered modified polysaccharide and the crosslinking agent at a temperature above 80 deg. C for a time sufficient to crosslink the modified polysaccharide to render it water-swellaable and water-insoluble, as well as to provide it with an Absorbency Under Load, as defined in the description and Figure 1, of at least 17, the water-swellaable, water-insoluble modified polysaccharide retaining greater than 50 percent of its Absorbency Under Load after aging for 60 days at 24 deg. C and 30 percent relative humidity.

Dwg.0/3

Derwent Class: A11; A96; D22; F07; P32; P34

International Patent Class (Main): C08B-011/12; C08B-015/010; C08B-015/10; C08B-037/00

International Patent Class (Additional): A61F-013/53; A61L-015/28; A61L-015/60; C07B-005/00; C07B-031/12; C07B-037/00; C08B-011/20; C08B-015/00; C08L-001/26

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